

REMARKS

The following remarks respond in order to the numbered paragraphs of the office action mailed January 8, 2003.

1. Applicant appreciates and acknowledges Examiner's statement regarding the listing of references in Applicant's specification. This listing is not intended to and is not a substitute for an IDS. Applicant has already submitted a separate IDS.
2. Applicant has submitted an amended Abstract with this Response.
3. Applicant acknowledges Examiner's objections to the drawings. In response, Applicant submits amended drawings to show the objected to features are not necessary because not all features must be shown in the drawings to understand the claims. Specifically, the means for making a well/means for drilling a well in addition to a means for heating and means for processing an extracted subterranean mixture are understandable without specifically including those features in the drawings. As a result, Applicant respectfully traverses the Examiner's objections to the drawings.
4. In response to Examiner's objections, Applicant has submitted replacement drawings for Figures 2-4. The only difference from the original figures is that original Figures 2-4 are now re-labeled Figures 2a, 2b, and 2c. In addition, Applicant has amended the specification to parallel the re-labeling of the figures by submitting a replacement page for the "Brief Description of the Drawings," and a replacement paragraph that formerly referenced "Figures 2-4."

5. Applicant submits that amendments to the claims overcome all § 112, ¶ 2 rejections. Withdrawal of these objections and entry of the amended claims are respectfully requested.

6 & 7. In response to the § 102(b) anticipation rejections by either Huff or Durup, Applicant submits that the amended claims, submitted in this Response, overcome these rejections. Specifically, Applicant points out that neither Huff nor Durup teaches, “the fluid forming a subterranean mixture with the subterranean material *in a single cavity*.” Instead, Huff teaches “developing contemporaneous multiple cavities.” Huff, Col. 2, lines 58-62. And, Durup teaches “eliminating” portions of the casing with “a cutting apparatus” to make “preliminary sub-cavities.” Durup, Col. 3, lines 54-67; Col. 4, lines 1-10. Neither of these references teaches each and every element and limitation, especially the single cavity method and system for subterranean solution mining taught and claimed by Applicant. *C.R. Bard, Inc. v. M3 Systems, Inc.*, 157 F.3d 1340, 1349 (Fed. Cir. 1998); *Celeritas Techs. Ltd. v. Rockwell Intl. Corp.*, 150 F.3d 1354, 1360 (Fed. Cir. 1998). As a result, neither Huff nor Durup anticipate Applicant’s amended claims, and Applicant respectfully requests withdrawal of these § 102(b) rejections.

8. Huff does not teach or suggest each and every element of Applicant’s claims 19 and 35, which depend from amended, non-obvious claims 1 and 21, respectively. Specifically, Huff’s teaching of “developing contemporaneous multiple cavities” *teaches away* from Applicant’s amended claims 1 and 21, directed at “a single cavity.” Huff, Col. 2, lines 58-62. As a result of Applicant’s claims 19 and 35 depending from non-obvious, amended claims 1 and 21, then Huff fails to render obvious Applicant’s claims 19 and 25.

In re Fine, 837 F.2d 1071, 1076 (Fed. Cir. 1988). As a result, Applicant respectfully requests withdrawal of this § 103(a) rejection.

9. In light of the amended claims, as argued above, Huff does not teach each and every element and limitation of amended claims 1 and 21. As such, the amended claims, alone or in combination with Kube, fail to render obvious claims 2, 11, 20, 22, 29 and 36 because the references do not teach or suggest all of Applicant's claim elements and limitations. MPEP § 2142; *In re Vaeck*, 947 F.2d 488, 493 (Fed. Cir. 1991); *In re Merck & Co., Inc.*, 800 F.2d 1091, 1097 (Fed. Cir. 1986); *In re Royka*, 490 F.2d 981, 985 (C.C.P.A. 1974).

Another reason Huff in view of Kube fails to render obvious claims 2, 11, 20, 22, 29 and 36 is because there is no showing of any suggestion or motivation in the references, or that it is within the knowledge of those skilled in the art, to modify a reference to result in the invention as claimed in claims 2, 11, 20, 22, 29 and 36. For this reason too, Applicant's claims 2, 11, 20, 22, 29 are not rendered obvious by Huff in view of Kube.

On a final note, Applicant wishes to agree on the record with Examiner that Huff fails to teach Applicant's original claims 2, 11, 20, 22, 29 and 36.

For the above reasons, Applicant respectfully requests withdrawal of this § 103(a) rejection.

10. Much of the same argument presented in response to the § 103(a) rejection in paragraph 9 of the Office Action applies to the § 103(a) rejection made against claims 12 and 30 in light of Huff in view of Brinton. Specifically, Huff does not teach each and every element and limitation of amended claims 1 and 21. As such, the amended claims, alone

or in combination with Brinton, fail to render obvious claims 12 and 30 because the references do not teach or suggest all of Applicant's claim elements and limitations. Id.

Another reason Huff in view of Brinton fails to render obvious claims 12 and 30 is because there is no showing of any suggestion or motivation in the references themselves, or that it is within the knowledge of those skilled in the art, to modify a reference to result in the invention as claimed in claims 12 and 30.

On a final note, Applicant wishes to agree on the record with Examiner that Huff fails to teach the heating of fluid or means for heating. And, contrary to the Office Action, Applicant points out that Brinton at the cited col. 14, lines 72-73 does not teach that "it is sometimes desirable to heat fluid for solution mining based on the material to be mined." Instead, Brinton, at this citation, teaches that "for *other* purposes and for other materials the *water* must be heated." Brinton's stated "*other* purposes" are presumably not those purposes stated immediately prior: "freeing and removal of material from a well." However, freeing and removing by heating the fluid, which is not relegated to water alone, is the purpose heating the fluid in Applicant's invention.

For the above reasons, Applicant respectfully requests withdrawal of this § 103(a) rejection.

11. Again, much of the same argument presented in response to the § 103(a) rejection in paragraph 9 and 10 of the Office Action applies to the § 103(a) rejection made against claims 14-18 and 31-34 in light of Huff in view of Larson. Specifically, Huff does not teach each and every element and limitation of amended claims 1 and 21. As such, the amended claims, alone or in combination with Larson, fail to render obvious claims 14-18 and 31-34 because the references do not teach or suggest all of Applicant's claim elements and limitations. Id.

Another reason Huff in view of Larson fails to render obvious claims 14-18 and 31-34 is because there is no showing of any suggestion or motivation in the references themselves, or that it is within the knowledge of those skilled in the art, to modify a reference to result in the invention as claimed in claims 14-18 and 31-34. --

Moreover, Larson's mere mention of a pump in a well is insufficient to render Applicant's invention obvious. Merely because the references *can* be combined, or may be within the ordinary skill of one of ordinary skill in the art, does not establish *prima facie* obviousness. See MPEP § 2143.01(b). In fact, Larson, a patent directed at "leach mining" for uranium and similar ores, teaches use of a pump with the drilling of a "main drill hole and branch hole (or holes)," which is far removed from the requisite teaching or suggestion, alone or in combination with Huff, to found obviousness. Larson, Col. 2, lines 32-33, 56-57. In short, there is no teaching or suggesting Applicant's claimed invention. For this reason too, Applicant's claims 14-18 and 31-34 are not rendered obvious by Huff in view of Larson.

On a final note, Applicant wishes to agree on the record with Examiner that Huff fails to explicitly teach the pumping/means for pumping, the pump lifting through a tube, the pump in the elbow well, and the means for placing the pump.

For the above reasons, Applicant respectfully requests withdrawal of this § 103(a) rejection.

12. Claim 39 is not obvious because it depends from non-obvious claim 37. *In re Fine*, 837 F.2d 1071, 1076 (Fed. Cir. 1988). As a result, Applicant respectfully requests withdrawal of this § 103(a) rejection.

CONCLUSION

For the foregoing reasons, Applicant believes the Amendments, in light of the Remarks, overcomes all objections and rejections in the Office Action mailed January 8, 2003. As a result, Applicant respectfully requests entry of the Amendments and an early notice of allowance.

Applicant invites Examiner to reach Applicant's attorney, Erik J. Osterrieder, for any questions or comments concerning this application.

Respectfully submitted,



Erik J. Osterrieder
Reg. No. 48,966
Arnold & Associates
2401 Fountain View Drive, Suite 630
Houston, TX 77057
Tel: (713) 972-1150
Fax: (713) 972-1180
ATTORNEY FOR APPLICANT

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